

Abstract

To present a reaction system that efficiently catalyzes an enantio selective asymmetric nucleophilic addition reaction of an α -iminophosphonic acid ester. An optically active α -amino- γ -oxophosphonic acid derivative is produced through an asymmetric 5 addition reaction of an α -iminophosphonic acid ester and a nucleophilic agent (for example, a silyl enol ether).